12 Harris T, Feldman JJ, Kleinman JD, Ettinger WH, Makuc DM, Schatzkin AG. The low cholesterol-mortality association in a national cohort. *J Clin Epidemiol* 1992;6:595-601.
13 Tran ZV, Weltman A. Differential effects of exercise on serum lipid and lipoprotein levels seen with changes in body weight. *JAMA* 1985;254: 919-24.
14 Blazer D, Burchett B, Service C, George LK. The association of age and depression among the elderly: and epidemiologic exploration. *J Gerontol* 1991;46:M210-5.
15 Smith GD, Shipley MJ. Serum lipids and depression. *Lancet* 1993;341:434.
16 Cornoni-Huntley J. Brock DB, Ostfeld AM, Taylor JO, Wallkace RB, Lafferty ME. *Established populations for epidemiological studies of the elderly: resource data book.* Bethesda, MD: US Public Health Service, 1986. (NIH Publication No 86-2443.)
17 Cornoni-Huntley J. Ostfeld AM, Taylor JO, Wallace RB, Blazer D, Berkman LF, *et al.* Established populations for epidemiologic studies of the elderly: study design and methodology. *Aging: Clinical and Experimental Research* 1993;5:27-37.
18 Radloff, LS. The CES-D scale: a self-report depression scale for research in the general population. *Applied Psychological Measurement* 1977;1:385-401.
19 Katz S, Downs TD, Cash HR, Grotz RC. Progress in the development of the index of ADL. *Gerontologist* 1970;10:20-30.
20 Kohout FJ, Berkman LF, Evans DA, Cornoni-Huntley J. Two shorter forms of the CES-D depression symptoms index. *Journal of Aging and Health* 1993;5:179-93.
21 Hooker K, Siegler IC. Separating apples from oranges in health ratings: perceived health includes psychological well-being. *Behavior, Health, and Aging* 1992;2:81-92.

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Attitudes among NHS doctors to requests for euthanasia

B J Ward, P A Tate

Abstract

***Objectives*—To explore NHS doctors' attitudes to competent patients' requests for euthanasia and to estimate the proportion of doctors who have taken active steps to hasten a patient's death.**

***Design*—Anonymous postal questionnaire, with no possibility of follow up. The survey was conducted from December 1992 to March 1993.**

***Subjects*—All (221) general practitioners and 203 hospital consultants in one area of England.**

***Results*—273 doctors responded to a question on whether a patient had ever asked them to hasten death. Of these, 163 had been asked to; 124 of these had been asked to take active steps to hasten death; 38 of 119 (32%) of these had complied with such a request (95% confidence interval 23% to 40%). This proportion represented 12% of all those who returned a completed questionnaire and 9% of all those who had been sent a questionnaire (95% confidence interval 6·3% to 11·7%). A larger proportion of the respondents (142/307 (46%)), however, would consider taking active steps to bring about the death of a patient if it was legal to do so.**

***Conclusions*—Many doctors face difficult decisions about euthanasia. For the benefit of both patients and doctors euthanasia should be discussed more openly.**

Introduction

Euthanasia evokes strong feelings in everyone, including doctors. Although doctors in Britain are known to practise euthanasia, few data exist either on doctors' attitudes to euthanasia or on its incidence. Euthanasia can be classified as active or passive: active euthanasia occurs when a doctor takes active steps to end a patient's life, and passive euthanasia occurs when he or she allows a patient to die through deliberate inaction. We aimed to explore doctors' attitudes to requests for euthanasia from competent patients and to estimate the proportion of doctors who have practised active euthanasia.

Department of Anatomy, Cambridge University, Cambridge CB2 3DY
B J Ward, *medical student*
P A Tate, *general practitioner*

Correspondence to:
Dr P A Tate, East Barnwell Health Centre, Cambridge CB5 8SP.

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Methods

We conducted our survey from December 1992 to March 1993. We sent a questionnaire about euthanasia to all general practitioners (n=221) and to a similar number of hospital consultants (n=203) in one area of England. The questions were worded to elicit response about hastening death in competent patients only.

Not all respondents were required to answer all the questions: respondents who denied ever having been requested to hasten a patient's death (question 1) were directed to bypass question 2 (about complying with requests) and to proceed to the remaining questions. All respondents were asked about their age, sex, and religious beliefs. Respondents were assured of anonymity but were told that the results of the survey might be published.

All statistics were calculated with the program SPSS 4.0 and Pearson's χ^2 test.

Results

In all, 318 of the 424 questionnaires were returned, but only 312 had been completed. This represents a return rate of 73·6%.

In question 1 the doctors were asked whether a patient had ever asked them to hasten his or her death. They were given a choice of three responses: "Yes, by asking for treatment to be withdrawn or withheld" (passive euthanasia); "Yes, by seeking active steps to hasten death" (active euthanasia); or "No." Table I shows the responses. In all, 163 of the 273 doctors who responded to this question had been asked at some stage to hasten a patient's death; 124 had been asked to hasten death with active euthanasia, 71 of whom had also been asked for passive euthanasia. A higher proportion of general practitioners (109/169 (64%)) than consultants (54/104 (52%)) had received such a request.

In question 2 the doctors were asked whether they had ever complied with a patient's request for active euthanasia; 119 of the 124 doctors who had ever been asked for such help answered this question. Table II shows their responses. In all, 38 had taken active steps to end a patient's life, which represents 12% of all doctors who returned a completed questionnaire and 9·0% (95% confidence interval 6·3% to 11·7%) of all those who had been sent a questionnaire. No significant associations existed between the respondents' age, sex, or religious beliefs and answers to question 2.

TABLE I—*Responses of 273 doctors to question 1, which asked "In the course of your medical practice, has a patient ever asked you to hasten his or her death?" Values are numbers (percentages) of doctors*

Response	General practitioners (n=169)	Consultants (n=104)	Total (n=273)
Had been asked to hasten death	109 (64)	54 (52)	163 (60)
Had been asked for:			
Passive euthanasia only	22 (13)	17 (16)	39 (14)
Active euthanasia only	42 (25)	11 (11)	53 (19)
Both passive and active euthanasia	45 (27)	26 (25)	71 (26)
Total who had been asked for active euthanasia	87 (51)	37 (36)	124 (45)
Had not been asked to hasten death	60 (36)	50 (48)	110 (40)

TABLE II—*Responses of 119 doctors to question 2, which asked "Have you ever taken active steps to bring about the death of a patient who asked you to do so?" Values are numbers (percentages) of doctors*

Response	General practitioners (n=83)	Consultants (n=36)	Total (n=119)
Yes	25 (30)	13 (36)	38 (32)
No	58 (70)	23 (64)	81 (68)

The responses to questions 1 and 2 showed that, although a larger proportion of general practitioners (87/169 (51%)) than consultants (37/104 (36%)) had been asked to practise active euthanasia, general practitioners were less likely (25/83 (30%)) than consultants (13/36 (36%)) to comply with such a request.

In questions 3, 4, and 5 all the doctors were asked to record on a Likert five point scale their agreement or disagreement with three statements about their attitudes to both passive and active euthanasia. In question 3 the doctors were asked whether they would consider practising passive euthanasia. Table III shows that 276 of the 303 respondents to this question said that they would consider doing so. This question alone was not worded to exclude euthanasia that had not been requested. A strong positive correlation ($P<0.01$) existed between answering "strongly agree" to this question and having been asked by a patient to hasten death. No significant associations existed between doctors' answers to this question and their religious beliefs.

TABLE III—*Responses of 303 doctors to question 3, which stated "Sometimes I would be prepared to withdraw or withhold a course of treatment from a terminally ill patient, knowing the treatment might prolong the patient's life." Values are numbers (percentages) of doctors*

Response	General practitioners (n=166)	Consultants (n=137)	Total (n=303)
Strongly agree	57 (34)	61 (45)	118 (39)
Agree	90 (54)	68 (50)	158 (52)
Undecided	9 (5)	3 (2)	12 (4)
Disagree	9 (5)	3 (2)	12 (4)
Strongly disagree	1 (1)	2 (1)	3 (1)

In question 4 the doctors were asked whether they thought the law on euthanasia in Britain should be similar to that in the Netherlands. Table IV shows the responses to this question. Of the 309 doctors who responded, 146 agreed or strongly agreed with the statement, 103 disagreed or strongly disagreed, and 60 were undecided. A strong association ($P<0.01$) existed between doctors' responses to this question and their reported practice of euthanasia (question 2): the doctors who agreed or strongly agreed with the statement were more likely to have practised euthanasia while those who disagreed or strongly disagreed were more likely not to have practised it. An association ($P<0.05$) also existed between the doctors' responses to this question and their religious views: the doctors who held religious beliefs tended to disagree with the statement while those who did not tended to agree.

TABLE IV—*Responses of 309 doctors to question 4, which asked whether the law on euthanasia in Britain should be similar to that existing in the Netherlands.* Values are numbers (percentages) of doctors*

Response	General practitioners (n=169)	Consultants (n=140)	Total (n=309)
Strongly agree	26 (15)	21 (15)	47 (15)
Agree	55 (33)	44 (31)	99 (32)
Undecided	39 (23)	21 (15)	60 (19)
Disagree	32 (19)	38 (27)	70 (23)
Strongly disagree	17 (10)	16 (11)	33 (10)

*The actual question asked was: "In the Netherlands, doctors are now virtually certain to avoid prosecution if they end the life of a patient, provided: this is the patient's well-considered wish; the patient has an irreversible condition causing protracted physical or mental suffering which he or she finds unbearable; there is no reasonable alternative (from the patient's point of view) to alleviate the suffering; the doctor has consulted another professional who agrees with his or her judgment. Do you think a similar situation should exist in Britain?"

In question 5 the doctors were asked whether they would consider practising active euthanasia if it was legal. Table V shows that 142 of the 307 doctors who responded to this question would be prepared to do so. A strong association ($P<0.01$) existed between the doctors' responses to this question and their religious beliefs: the doctors who held religious beliefs tended to disagree or strongly disagree and those who disclaimed religious belief tended to agree or strongly agree. This question generated some spontaneous comments from respondents: "I disagree with legalised euthanasia as there is no way to prevent abuse. I am concerned that there are wide differences in current approaches to terminal care"; "I think that it is quite wrong that doctors consider themselves above the law. If we want euthanasia we must change the law either by case studies or by parliament and legislation."

TABLE V—*Responses of 307 doctors to question 5, which asked "If a terminally ill patient asked me to bring an end to his or her life, I would consider doing so if it were legal." Values are numbers (percentages) of doctors*

Response	General practitioners (n=168)	Consultants (n=139)	Total (n=307)
Strongly agree	17 (10)	14 (10)	31 (10)
Agree	69 (41)	42 (30)	111 (36)
Undecided	35 (21)	30 (21)	65 (21)
Disagree	32 (19)	36 (26)	68 (22)
Strongly disagree	15 (9)	17 (12)	32 (10)

The answers to questions 3, 4, and 5, about attitudes to euthanasia, were all associated positively with one another ($P<0.01$). Thus, in general, the doctors either supported euthanasia or rejected it.

Discussion

A sizeable proportion of doctors are asked by patients to hasten their deaths—60% in this study, 40% of Australian medical practitioners,[1] and 75% of Dutch family doctors.[2] Hastening death by withdrawing treatment that prolongs life (passive euthanasia) is now generally accepted to be a legitimate response to a patient's request for such an action (provided that the patient is competent) and respects patients' autonomy.[3] Patients have the right to decline treatment, and it is therefore not surprising that 91% of the doctors in our study were willing to practise passive euthanasia. In contrast, taking active steps to end a patient's life (active euthanasia) is both illegal and against the recommendations of the BMA.[3] Despite this, 32% of doctors who had faced a request for active euthanasia reported that they had complied with such a request. This proportion is comparable to the 29% of doctors in an Australian study who said that they had taken active steps to end a patient's life[1] but smaller than the 41% of Dutch doctors who admitted having taken active steps in studies conducted in the Netherlands before the change in legislation in 1993.[2,4]

LIMITATIONS OF SURVEY

We did not ask the doctors how many times they had practised active euthanasia or where, when, or why. We therefore have no data on the number of times the responding doctors had practised active euthanasia, the point in their career at which they had practised it, or how severely ill each patient was at the time and what the prognosis was. Given that active euthanasia is illegal, doctors are unlikely to agree to act without careful consideration. Further research to provide answers to such questions would therefore be useful to identify what issues a change in legislation might need

to address and to assess accurately the number of cases of active euthanasia as a proportion of all deaths in Britain. This proportion is probably less than the 1-2% reported in a Dutch survey[4] undertaken just before new, more permissive legislation in 1993.

In their survey in 1988 of Australian general practitioners, Kuhse and Singer reported that almost two thirds of their sample believed that the law should be changed to allow doctors to take active steps to end life in some circumstances.[1] Our results suggest considerable support among general practitioners and hospital consultants for changes in the law on euthanasia, although the question in our survey allowed doctors to consider only a single option—whether active euthanasia should be legal. In all, 46% of doctors were prepared to consider practising active euthanasia if it became legal. In a survey of general practitioners in Britain in 1987, 35% of doctors said that they would consider practising active euthanasia if it became legal,[5] compared with 40% of Australian doctors who said the same in 1988.[1]

Clinical implications

- Few data exist in Britain on the incidence of euthanasia or on doctors' attitudes towards euthanasia
- This study showed that almost half of the doctors surveyed had been asked by a patient to take active steps to hasten death
- A third of the doctors who had been asked to take active steps had complied with a patient's request
- Almost half of all doctors would consider taking active steps to hasten a patient's death if it became legal to do so
- British law on euthanasia is not satisfactory for either patients or doctors, and euthanasia should be discussed more openly

RELIGIOUS BELIEFS

No association existed between a doctor practising active euthanasia and holding a religious belief. Significant associations existed, however, between a doctor holding a religious belief and (*a*) the belief that the law on euthanasia should not be changed ($P < 0{\cdot}01$) and (*b*) being unwilling to practise active euthanasia if it became legal ($P < 0{\cdot}01$). Thus the attitudes held by some doctors with religious beliefs seem to be at variance with their behaviour, implying painful personal dilemmas. As in all other aspects of medical practice, a doctor must retain the right to act according to his or her own conscience or ideological view.

CONCLUSION

The high response rate in our survey indicates great interest in euthanasia among doctors. Our findings have implications for both professional and educational policies in Britain. Firstly, the current law on euthanasia is not satisfactory for patients. Patients may be aware that, although they may request active euthanasia, doctors cannot provide it legally; indeed, to raise this issue may be thought to compromise their relationship with the doctor. Conversely, remaining silent may also affect this relationship. A doctor may think that he or she cannot raise the issue for personal, professional, or legal reasons, and so communication between doctors and patients may be blocked. Secondly, if a patient raises the issue of active euthanasia he or she does so without knowing how the doctor is likely to respond. Not only is this unfair to patients but it may lead to those who wish to hasten their deaths seeking out doctors who will be sympathetic to their request. Thirdly, the fact that active euthanasia is illegal may deprive doctors of access to sources of adequate and effective advice and support, both professional and personal. Finally, the taboo nature of the subject and the legal and religious prohibitions prevent adequate education about euthanasia during medical training. It is important, therefore, that euthanasia should be discussed more openly and effectively.

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1 Kuhse H, Singer P. Doctors' practices and attitudes regarding voluntary euthanasia. *Med J Aust* 1988;148:623-7.
2 Van Der Wal G, Van Eijk JThM, Leenen HJJ, Spreeuwenberg C. Euthanasia and assisted suicide. I. How often is it practised by family doctors in the Netherlands? *Fam Pract* 1992;9:130-4.
3 Euthanasia. Conclusions of a BMA working party set up to review the association's guidance on euthanasia. *BMJ* 1988;296:1376-7.
4 Van Der Maas PJ, Van Delden JJM, Pijnenborg L, Looman CWN. Euthanasia and other medical decisions concerning the end of life. *Lancet* 1991;338: 669-74.
5 National Opinion Poll Market Research. *Attitudes towards euthanasia amongst Britain's general practitioners*. London: NOPMR, 1987.

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General practitioners' awareness of different techniques of cataract surgery: implications for quality of care

T Potamitis, M Fouladi, R K Aggarwal, H S Jones, A R Fielder

Birmingham and Midland Eye Hospital, Birmingham B3 2NS
T Potamitis, *registrar*
M Fouladi, *senior house officer*
R K Aggarwal, *senior registrar*
H S Jones, *research associate*
A R Fielder, *professor of ophthalmology*

Correspondence to:
Mr Potamitis.

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With the introduction of fundholding, general practitioners can now purchase treatment from the provider of their choice. To obtain the best treatment for their patients they need to keep abreast of new developments in a large range of specialties. The past decade has seen profound changes in ophthalmology, particularly in cataract surgery. Extracapsular cataract extraction and phacoemulsification have largely superseded intracapsular cataract extraction, mainly because of the higher risk of sight threatening complications with intracapsular extraction.[1,2] Although extracapsular surgery is now the most commonly used method in the United Kingdom, 2%-4% of ophthalmologists routinely perform intracapsular surgery[3,4] and 1% do not routinely use intraocular lens implants.[4] The quality of cataract treatment available therefore varies greatly between units. We examined general practitioners' familiarity with different types of cataract surgery and their ability to evaluate the clinical merits of these methods.

Methods and results

As the quality of cataract surgery varies mainly because of the difference between intracapsular and extracapsular cataract extraction, we identified ophthalmic units where both techniques were performed routinely and surveyed 593 general practitioners within the catchment areas of these units.

A total of 367 (62%) completed questionnaires were received. Intracapsular extraction was the best known